Furniture Factory, 12th and B. Storage, 22d and M. Brass Beds.



Our idea is to get the best for our patrons always. Never had a finer illustration of that fact than in the Brass Beds we handle. Quality tells in Brass Beds. We handle the famous Adams & Westlake Beds because they represent the best that has been put on the market. The designs are always good, always of a higher class than other lines—the lacquer is guaranteed to wear as lacquer is guaranteed to wear as long as you expect it to wear, and that's all that can be expected of the best lacquer. We are always glad to sell you an A. & W. Brass Bed, because we know there will never be cause for complaint against it.

There are other brass beds here. Two that are specially priced by the way. \$26 and \$35 for Brass Beds in all sizes-and they are to be compared with any at \$36 and \$45.

We have the only perfect three-piece Metal Bed—head, foot and spring-that's all there is to it. Used by all institutions and by particular housekeepers as well.

Spend five minutes on our bedding floor and we'll tell you why we think these beds of ours best-give you good reasons for their being so.

1t W. B. MOSES & SONS, F ST. COR. 11TH.

Mayor Boras & Gos Reductions.

preparatory to stock taking, and the lowest prices of the year are in

\$5 & \$6 Hats, \$3.98. 150 Hats from our collection of trimmed hats to be \$ closed out at \$3.98. A bargain § any woman can appreciate.

\$1.50, \$2 and \$2.25 Hats, 99c.

Trimmed Felt Fedoras, in plain and scratch felt. The best shapes shown this season. \$1 and \$1.50

Child's Hats, 50c. Choice Hats in all colorsthe very daintiest things the

children can wear.

Mayor Books & Gos 11 937-939 F St.

"Lamaflois"





-note the latest ideas in Correct Boots for women—and you will see pictured the very Shapes and Leathers we are displaying in Diamond Boots. We have kept in advance of the styles in Fashioning these Peerless Boots, which are the result of \$3 cheviot serge | \$4.50 cheviot careful study and the adoption of the best style ideas of the best Shoe makers of the Metropolis. Many women who have been accustomed to paying \$3.50 to \$5 for their Boots have been converted to Diamond 3 Boots, which come in 24 \$3 Splendid Styles, and all are

FOR THE CHILDREN. You haven't tried the best Shoes for Children until you're had our "Little Rocks." If you're accustomed to Shoes that kick out in no time, fit out the Juniors with these Shoes that wear like SIZES 7 to 101/2, \$1.50; 11 to 2, \$1.75; 21/2 to 6,

C. P. LANGLOIS, FOOT FORM 13th & F Sts.

WhiteAsh, Kitchen and Latrobe Coal.

\$6.00 per ton.

Wm. J. Zeh, 702 11th St. N.W.

Special Offer THROUGH HOLIDAYS IN ALL DENTAL WORK AT The Evans Dental Parlors. 1309 F Street N.W.

PAINLESS EXTRAORING.

Be your own Santa Claus-order a Fine Oxford Cheviot from our Manufacturers' and Importers' Unloading Sale.

\$20.00

\$20.00 Suits, Overcoats, *\$1 1.80 \$1 1.80

Trousers,

\$6.00

Perhaps you got a nice gift in cash Christmas, and you cannot put a portion to better advantage than fitting your wardrobe with one of those Oxford Cheviot Suits or Overcoats from this great sale. The bargains are big and rare enough to appeal to the economical instinct of every man. They are still selling so briskly-those new Worsted Trouserings also. Order today and you'll have the garments ready to be handsomely attired for New Year's.

How About Full Dress Suit? Ours Are So Fine. \$25 up.

Always remember, our guarantee gives you full protection.

MERTZ and MERTZ, Tailors, \$ 906 and 908 F Street N.W.

THE DISCOVERY OF

Tincture Amal IN THE TREATMENT OF Consumption

Experience of Dr. Charles Drennen

of Birmingham, Ala., reported through the "Dietetic and Hygienic Gazette." "My experience with TINCTURE AMAL shows its effect is to make the tubercle bacilli inactive; gradually, but surely, eradicating them; building up the system, renewing wasted tissues with marvelous rapidity, and without causing any complications whatsoever. I regard it as wonderful a discovery as has come to my notice in my thirty

Report of L. D. Kastenbine, A. M., M. D.,

Professor General Medical and Pharmaceutical Chemistry and of Qualitative and Quantitative Analysis in Louisville, Kentucky, College of Pharmacy. "This is to certify that I have analyzed TINCTURE AMAL, and find it to be an entirely safe compound, consisting of extract from Senega and Columbo; Galbanum and Honey; abso lutely free from narcotics, and all poisonous vegetable and mineral substances."

Consumption in its incipient stages has been, and can be, absolutely prevented by TINCTURE AMAL. In the intermediate stages TINCTURE AMAL will check decline, stop waste of flesh, reduce the temperature, increase the vitality and help the system to successfully resist the further development of the disease. In the most advanced stages of consumption TINCTURE AMAL is the best re

NO CLAIMS ARE MADE FOR TINCTURE AMAL NOT FULLY ESTABLISHED BY MEDICAL SCIENCE. As a general tonic or loss of flesh; where the appetite is lax; where there is muscular weakness,

request.

Tincture Amai can be secured through any physician or druggist, or will be sent express paid, with I directions for hor 2 treatment, on receipt of price—\$1.25 per large bottle

OFFER TO PHYSICIANS:

Any reputable physician who wishes to investigate the effect of Tincture Amal in the treatment of respiratory diseases can procure, without any cost whatever, sufficient Tincture Amal to conduct a satisfactory test, by simply sending a diagnosis of the case to be treated.

TINCTURE AMAL MFG. CO., Ltd., Baltimore, Md.

"Hechts' Greater Stores." 513-515 Seventh Street.

Several lots skirts, suits, wraps and furs came in today

which should have arrived last week. The delay was caused by the maker and he "shoulders" the blame, allowing us a concession which means that we are enabled to offer you some exceptional bar-

Purchases "charged" when desired.

Suits worth \$20, \$9.98.

Broadcloths, Venetians, amel's hairs, homespuns in great variety. The jackets are in all styles, and all of them are silk lined. The skirts are the new shape, with inverted pleat backs —full flare bottoms. To duplicate them you'll have to pay \$20

Two lots of ladies' suits. Suits worth \$35, \$19.98.

> Black pebble cheviots, broadthe lot, most of them are all-silk lined, including the skirts, lined with the very highest grade of taffeta silk. The jackets are in all effects, including blouse; \$

Three lots of ladies' skirts.

\$3, to go for \$1.98.

Ladies' cheviot serge skirts; with inverted pleat backs; full width bottoms; worthful linings; in variety of shades; which are worth

serge skirts.

serge skirts - positively all wool; full width; inverted pleat backs; instead of \$4.50,

Ladies' \$12.98 skirts for \$7.98.

Ladies' black pebble cheviot and wide-wale cheviot skirts — some made with flounce and some seven gore; lined with mercerized Italian cloth; \$7.98 instead of \$12.98.

Ladies' furs and wraps.

Short 'auto' coats,\$12.98.

Neck scarfs, \$1.98. Imitation mink and real mink neck scarfs, trimmed with six talls; full, well-appearing pleces, which look much like the high-cost furs, and for which others get \$4.98.

\$10 coats, \$6.98. Ladies' handsome quality black kersey jackets; up to date in style; with new sleeves and new fronts; elegantly lined; \$10 values; to go for \$6.98 for choice.

Handsome velour plush blouse jackets; ex-quisitely trimmed with braid and beads and

silk lined; instead of \$40, for \$25. Neck scarfs, \$4.98. Imitation marten neck scarfs, trimmed with six marten tails, which are worth no less than \$6, for \$4.98.

"Auto" coats, \$19.98.

new automobile coats, in black, tan and cas-

tor, at \$19.98, just like those for which we

have had to ask \$25, and which are being

Velour jackets, \$25.

Hecht & Company,

513-515 Seventh Street.

Taking the Australian colonies in the aggregate, there are only seventy-five unmarried females for every one hundred unmarried males. In New South Wales alone, according to the last census, there are nearly 100,000 more unmarried males than unmarried males the excess is upmarried to the answer.

**Code material a document to the defented unmarried males than unma

THE ONE SURE WAY TO CURE EVERY FORM OF PILES.

the delicate tissues, and mensitive membranes of the rectum. The cuse is natural and easy, and al-

This is one reason why the Pyramid Pile Cure

It is in suppository form, applied at night directly to the disensed parts, where it is most needed, and not by the roundabout way of the

stomach nor the harsh, barbarous method of sur-

gleal operation. The Direct applications to the seat of disease is the

only common sense cure, and this is fully accom-

If the voluntary testimony of thousands is worth anything, then no sufferer should delay in giving

this splendid remedy at least a trial, as it costs

but 50 cents at any drug store, and is guaranteed

absolutely safe and free from oplates or cocaine

Nearly every druggist has some favorite pile cure

on which he can make a larger profit than he can

on the Pyramid, and oftentimes to substitute, but

when it is remembered that the Pyramid Pile Cure is the only remedy for piles that has a national reputation, and is sold by every druggist in the United States and Canada, it means something;

it means that no remedy could do this unless it

The Pyramid Pile Cure has cured thousands of

sufferers from the different forms of the disease,

New Year's Music.

Big

Reductions

In Pianos.

We close our books for this

year and this century January

1st, and wish to reduce our stock

of pianos to the minimum.

Have some very special bar-

gains in small lots of New Up-

right Pianos and used Upright

Pianos taken in exchange be-

fore Christmas-all of which

have been put in first-class con-

dition and will be closed out at

A splendid opportunity to invest your Christmas money where it will do you the most good. New Year is the beginning of Washington's social season—and every household will want a Piano at this time

Nearly New \$149

\$450 Upright \$225

Our terms are the easiest in Washington, and our ten years' guarantee goes with every instrument.

New Uprights for rent,

\$4 and \$5 mo. Let us send you a nice new Upright Plane for the social season new beginning. Rent only \$4 and \$5 per month. Lower rates for longer periods.

BRADBURY

Factory Warerooms,

1225 Pa. Ave.

THE ELECTRIC NEEDLE TREATMENT.
By Miss BLANCHARD GATEWOOD, SPECIALIST.
Birthmarks, superfluous hair and moles permanently destroyed; work guaranteed; room 46,
Metzerott building.

del-26t*-5

Reduced

Telephone

Rates.

Upon the opening of its BRANCH EX-CHANGES at Capitol Hill and Georgetown, on or about December 1, THE CHESA-PEAKE AND POTOMAO TELEPHONE COMPANY will install UNLIMITED TELE-PHONE SERVICE, on metallic circuits, equipped with long-distance instruments, in residences only, at

esidences only, at
\$48.00 PER YEAR,
6 PARTIES ON EACH CIRCUIT.
MESSAGE RATE TELEPHONES, on metallic circuits, equipped with long-distance instruments, in residences only, will be fur-

nished at \$30.00 PER YEAR FOR 600 OUTWARD CALLS, 6 PARTIES ON EACH CIRCUIT. For full particulars in regard to the above, and to other new rates, apply to the OONTRACT DEPARTMENT.

AND MANAGEMENT OF THE PROPERTY OF THE PROPERTY

the wonderful bridge of the Erie railroad

county. The original bridge was a marvel

and was considered one of the wonders of

This original structure was found to be

cars of the Erie railroad, and last May

traffic on this branch was suspended. It

extends from Carrollton on the main line

to Johnsonburg, a distance of 53.2 miles

and passes through Bradford, Custer City

and Mt. Jewett and connects with the nar-

row gauge division of the P. and W. R. R.

It traverses a wilderness region where bears, deer and wildcars are found, and the

of steel support the structure, and these vary from 23 feet to 285 feet in height and

ers look like a spider syeb, but as they are closely examined some idea of the strength

steel with a depth of 61/2 feet look life mere cords from below. These girders are

placed on steel rolfers 38 inches long and

inches in diameter, to provide for elasticity

or in other words, contraction and expan-sion. This wonderful structure is now

ready for traffic. It is one of the marvels

In the show cases devoted to exhibits of

early printing from Japan and China the British Meseum authorities have just placed

any country, and is 300 years earlier than the establishment at Stockholm of the first

European bank which issued notes. About eighteen inches in length and half that in width, it is a curious looking document.

used to support the new structure.

Greatest of Its Kind to Be

no29-26t,42 Telephone 1893.

about half price.

Used Upright

whether itching, bleeding or protruding piles. de26&29

to commonly found in so-called pile cures.

possessed positive, unmistakable merit.

of piles has left him.

gical operation.

has been so uniformly successful.

plished by the Pyramid Pile Cure.

ALONG THE RIVER FRONT

The only sure was to cure every form of piles is to use a remedy like the Pyramid Pile Oure. HOUSEBOAT RECENTLY DAMAGED BY FIRE TO BE REBUILT. which is applied directly to the parts affected, and its wonderful healing effects are apparent from the first application because its medicinal proper-ties are rapidly absorbed right where needed by

Fish and Oyster Markets Extremely Dull-The Passing Craft-General News.

The houseboat Arcadia, belonging to Mr.

Frank Rawlings of this city, which was badly damaged by fire while lying in Four Mile Run about ten days ago, has been brought to this city to be rebuilt. She is now lying at Townshend's boat house at the foot of 7th street, where the work will be done. The roof and part of the sides of the house of the Arcadia were destroyed, but her hull seems to be all right. She will be rebuilt during the winter months and will be ready for service in the spring, when, it is stated, she will be again taken to Four Mile Run for hunting and fishing purposes. The fish market continues to be very dull, but few fish coming here either by boat or rail, and the buyers being as scarce as the supply is light. The shipment of river fist has ceased almost entirely, but few fisherdown. The river fish that are coming to market are bringing good prices. Yesterday evening the steamer Wakefield brought three packages of yellow perch from the river nets and fourteen packages were brought up by the Norfolk line steamer from the shores about Old Point and Norfolk. No North Carolina fish are in the market at

per pound, bolling rock at 20c. per pound, black bass at 8 to 12c. per pound, white perch at 10c. per pound, yellow or ring perch at 5c. per pound, cat fish at 25 to 30c. per bunch and jumping mullets at 5c. per bunch. Turtles and terrapins were on sale at the fish wharf this morning. Potomac sliders sold at \$2 to \$6 per dozen and diamond backs brought \$25 to \$30 per dozen. The dealers at the wharf look for but small supplies of river fish until after but small supplies of river fish until after all danger of ice has disappeared. The oyster market, as is usual after Christmas, was extremely dull this morning, there being but few buyers on hand, and they only purchasing in small quantities. The supply of bivalves at the wharf is very large this morning, the thirty-one vessels in port having on board at least 7,000 bushels. Prices still keep up to the figures of last week, the smaller oysters selling at from 50 to 60 cents per bushel, and the larger ones at 70 to 80 cents per bushel. Several of the vessels at the wharf have been there for ten days, and a drop in prices is not unexpected. The recent arrivals at the wharf are the Columbia, the S. H. Robey and the Maggie L. They all came from the Blackistone's Island neigh-borhood,

Coming and Going. The schoener Col. J. Merrick has arrived

from the lower river with a large cargo of pine lumber for the local dealers. The schooner Mary E. Gandy has sailed for Blackistone's Island and after the holidays will load oysters back to this port. The three-masted bugeye Beulah Land is discharging her cargo of Virginia pine lumber at T. R. Riley's wharf, foot of N street

The tug Juno has returned to the lower river on the lookout for a tow of oysterladen vessels bound here.

The schooner A. H. Quinby is in port with a cargo of Virginia pine lumber for the local dealers.

The sloop Tropic has sailed for the lower river to load a cargo of oysters back to

The schooner Clara Leonard is in port with a cargo of cord wood for Carter & Clark.

The tug M. M. Davis is at the mouth of the river on the lookout for incoming vessels bound to this port or Baltimore.

The tug Camilla is at the American Ice Company wharf preparing for a cruise on

Mr. Reyburn's steam yacht Gretchen was out on the river for a short sail yesterday The steamer Potomac sailed yesterday evening for the lower river and Baltimore

The schooner Edward G. Hight is still lying at the wharf, foot of 9th street. It is understood that she is awaiting orders as to where to go for a grant of the state of the s with a fair cargo. as to where to go for a cargo. The steamer Wakefield came up from the lower river yesterday evening with a cargo fairly large for a Christmas day, when river business is always dull.

General Matters. The Occoquan steamer E. James Tull is hauled out on the marine railway at Alexandria, having her hull covered with sheet iron to enable her to run in the ice during the coming winter. The Tull runs freight trips between this city and Occoquan and Aquia creek and bring up large quantities of freight.

Many of the steamboats in the harbor

are prettily decorated with evergreens in compliment to the holiday season. Large cedar bushes crown the tops of all the flagpoles and holly, running cedar and other green stuff decorate the other parts The funeral of Miss Annie Curley, wife of

Capt. Albert Curley, a well-known schooner master of this city, took place from her home on Monday morning, the services being attended by many of the river men. Mrs. Curley was the daughter of a well-known marine engineer, now in the employ of the harbor master. She had long been a sufferer from consumption, and leaves several small children. The body was taken to Alexandria and interred in

the Union cemetery.
The steamboat owners are now looking for a long season of very dull business on the river, which always comes from directly after Christmas until about the middle of February. It is said that some of the river boats will be hauled off for necessary re-

The fog which covered the river and bay n the early part of this week was so heavy as to make all the steamers come to an anchor. The Weems line steamer due here Sunday night did not reach port until noon Tuesday. The Norfolk line steamer was nearly five hours late, and the Randall line boat was four hours late coming into port. The experimental "air cushion" boat built by Mr. Mothershead to revolutionize marine travel, but which failed to come up to expectations, was dangerously near being sunk a few nights ago. The boat for the past six months has been lying deserted in the dock adjoining the Randall line. By some means her fastenings became loosened and unobserved in the darkness she floated out into the channel. The steamer Harry Randall, coming into the dock, only missed the smaller boat by a few feet. She was taken in charge by the harbor police force, and is now lying at the harbor offices, awaiting her owner's orders.

Capt. Tally Fowkes of the ferry steamer
Columbia is quite ill of malarial fever.

The captain of the merchants to the ma-steamer Chatham has reported to the marine authorities at Baltimore that he passed a sunken vessel off Smith's Point, at the Virginia side of the mouth of the Poto-mac river, Monday. The schooner was a small one, painted white, with brown bands. The bowsprit was standing and the foremast gone, and her cabin was forward and not aft, as is the custom. The wreck was about three miles southeast of Smith's Point lighthouse.

Brought to Reason

bears, deer and wildcars are found, and the ruffled grouse is at home in the almost impenetrable slashings and virgin forests.

The new bridge is much heavier than the old structure. In the old bridge 2,500 tons of material were used, but in the new structure there will be 3,500 tons of steel, or 7,000,000 pounds. This modern steel miracle is 301½ feet above the level of the model wildcars structures. small wilderness stream and is 2,100 feet in length and nine feet wide. Twenty towers From the Memphis Scimitar. He was out walking with a young lady who had a decided antipathy to cigarettes. rest on solid piers of stone work. Looking up from the bottom these magnificent towlighted one of the little rolls and began fumes deep into his lungs, and then blowing of the new bridge is ascertained. Web plate girders of three-eighths inch mild great rings up at the moon, which gazed tranquilly down on his felly.

Offended by his presumption, she said "Do you know I can read fortunes in cigarette smoke?"
"Indeed!" exclaimed the unsuspecting youth. "Perhaps you'll condescend to read

"Oh, certainly, if you wish it." Then she gazed up in the air at the delicate blue wreaths of smoke. She hesitated evidently puzzled about something. "I am undecided which of two things is to befall you," she admitted; "your fortune is not so easily read as I fancled it would an interesting addition—a Chinese bank note issued during the reign of Emperor Hung Wu, A. D., 1368-1399. This is the earliest

"Why, I can't determine whether you are marked out for lung disease or lunacy," was the answer. "Cigarettes have such diverse effects on people of your tempera-

********************* GOLDENBERG'S,

922 to 928 7th St. "The Dependable Store."

Thursday Specials.

bargain offerings. We are determined to uphold its prestige each week. Important specials from every line are offered for tomorrow. So strong in saving as to engage the attention of every

\$69c. Sale of Black Silks A special offering tomorrow of regular \$1.00 Black Silks—staple styles that are in most popular demand—for 69c. a yard. Including:

Black Armure Silks—
Black Satin Duchesse—
27-inch extra heavy Black Taffeta—
24-inch Black Surah Silks—
Cashmere-finished Black Gros Grain—
Black Faille Francais—
Fine Black Bengaline Silks.

50c. Ebony Articles. Choice of ebony articles, trimmed with ster-ling silver, consisting of Mirrors, Complexion Brushes, Nail Polishers, Dressing Combs, Hair Brushes, Darners, Whisk Brooms, 25C.

50c. Sterling Silverware. Heavy sterling silver articles, including Shoe Buttoners, Cuticle Knives, Biotters, Darners, Thimbles, &c. Regular 50c. kind 25c.

\$1 Bed Spreads.

2 cases of White Spreads, full double-bed size, in handsome Marsellles patterns. Regular \$1.00 value, for.... 79c. Special Prices for Worsteds Least prices for these wanted things for the art embroiderer. In all colors and all kinds.

Spachtel Goods.

An Underwear Special. Ladies' Regular 39c. Jersey Ribbed Combination Suits, in gray and white; full cut and form-fitting garments. Offered 29c.

Men's Mufflers. A Kid Glove Special.

Notion Specials.

New Straight-front Corset Stays, 9c. pair.
Royal Black Spool Silk, 114c.
25c. and 39c. Silk Garters, with ribbon
bows and metal buckles—in glass boxes, for 6 speels of Clark's O. N. T. Speel Cotton, 25c.
15c. Frilled Garter Web, 9c. length, Speels of Darning Cotton, in black, tan and white, for 1c.

89c. Dress Goods. Regular 89c. Beavy-weight Kersey Suitings, in medium and dark grays; especially desirable for walking skirts, because it requires no linings, Special tomorrow

\$1.75 Bed Comforts. 5 cases of Double-bed Comforts, covered with best quality silkeline, and filled with pure white laminated cotton. \$1.00

From the Toilet Section.

 Woodbury's Facial Soap
 12c

 75c. Rhinestone Side Combs
 49c

 39c. Picture Frames
 25c

 Fancy Inkwells, in shape of large bullet, for
 12bc
 \$3 Bed Comforts.

5 cases of Heavy-weight Comforts (weigh 5½ lbs.); covered with fine sateen, scroll-stitched quilted on pure white \$1.98 Dressing Sacques.

Ladies' Eiderdown Dressing Sacques, finished with union seams, in red, blue and pink, in all sizes from 32 to 44. Special 47c.

Mussed Aprons. A great lot of Ladies' White Aprons, left from the Christmas rush. Solled and mussed slighty. Made of the Swiss, in fancy styles, long and short. Sold at 25c. to 39c., 18C.

Ladies' Night Gowns.

Ladies' Flannelette Night Gowns, in neat pink and blue stripes, with white flannelette yokes, trimmed with fancy braid; heavy weight, and in all sizes from 14 to 62c.

Automobile Coats. The ultra-fashionable Automobile Coats, 46 inches long, in castor, tan and black; made of fine French kersey, finished with heavy stitching and tailored in best style; satin lined. Special for...... \$14.75

How You Can Get

Credit at Cash Stores. The Washington Easy Payment Purchasing Association enables anybody with a regular income to enjoy the privilege of purchasing at cash stores at the lowest cash prices, while making payments to us in convenient weekly or monthly amounts.

By special arrangement this Association issues orders which are honored in the leading one-price stores of the District as cash, thus saving you the enormous advances asked by installment houses for accommodation we extend without cost. These orders are issued without bond or guarantee, and no interest is charged.

The standing of the houses accepting our orders is sufficient proof of this Association's responsibility, while its steadily increasing clientage attests the genuine advantage afforded.

Orders will be issued in any of the following lines: Athletic Goods, Carpets, Housefurnishings, Millinery, Bicycles, Coal and Wood. Clothing, Shoes, Dentistry,

Hardware, Drugs, Draperies, Stoves, Photography, Men's Furnishings, Tewelry,

Tailoring, Groceries, China and Giassware, Hatters, Ladies' Ready-made Clothing, Etc., Etc.

A list of houses with whom we are doing business, together with all other information, cheerfully given upon application to

Washington Easy Payment Purchasing Association, Room 2, 1423 F Street.

Dry Goods,

Furniture,

Expense Against Them, but One Road

Why are not steel ties used on American railroads? This question is often asked by those not initiated into the mysteries of railroad construction, and it is commonly ceptibility of the metal to atmospheric The most important reason for their not being used is their cost compared with wooden ties.

Prices, of course, vary with locality and circumstances, but the fair average cost of structed costs about \$2.50. The wooden tie under ordinary conditions will wear about ten years, and its life may be extended far beyond this period. The life of a steel the is problematical, but the majority of railenough to balance the increased cost. roads of the country will be driven to the use of steel ties, whether they so desire or The forests from which ties come will not last forever, and many of the roads are even now considering what to do in view of the scarcity of tie timber. Knowing that the age of the steel tie is coming engaged in the manufacture of steel ties probably not yet made, although some manufactures follow the European forms. For some years roads all over the conti-nent have been using steel ties with good results, and accordingly manufacturers in this country are using the foreign roads as arguments to induce American roads to try that steel does not make as good a tie as wood. With steel ties and rock ballast, they say, passengers would think that they were riding on a bed of solid cement on ac-count of the absence of resilient properties.

experienced in packing the dirt about the tracks getting out of alignment. For about Mountain railroad in Pennsylvania has been experimenting with the use of steel ties. The tie in use there resembles the "bowl" and "plate" tie largely in use in India and South America, and the company has been subjecting it to exceptionally heavy traffic. The ties were laid on October 12, 1869. There are forty-four of bolt angle bars, and the track is ballasted

with slag.
Since the ties were laid about 1,500,000 tons of freight has passed over them, principally coal cars of 60,000 and 80,000 younds capacity, hauled by 100-ton engines. The officials claim that the steel ties make s reduce the labor of track maintenance by 10 per cent. They also permit an increase of 33 per cent in the length of the sections to see why railroads in general do not

SPEED OF AN EARTHQUAKE. Preliminary Tremors Travel at th

Rate of 345 Miles a Minute.

From the Pittsburg Dispatch. Speaking of the Indian earthquakes of 1897, a London scientist says the vibrations world had there been provided suitable instruments. The preliminary tremors, which higher than that at which similar movements can be transmitted through glass or steel. The large waves, which are probably quasi-elastic gravitation waves, by traveling over the surface of the earth, reached

Europe at a rate of 113 miles per minute, or 2.98 kilometers per second. It is likely that these latter disturbances reached stations in Europe by traveling from their origin in two directions round the world. As an indication of this, we are told that at several of the European sta-tions slight undulations are to be seen on the seismograms at times we should expect to find such markings, had they traveled from India to Europe by the longest possi-ble route. From the period of these waves, which is taken at 22 seconds, and their velocity, their length may be inferred, an estimate of which is 34 miles; while their height, as deducted from their length, and the maximum angle of tilting, is estimated

at 20 inches. The slowness of the movement was such that they could not be felt, while the magnitude was such that the unaided eye of an bserver would not be able to recognize any differential movements in his surroundings. The largeness of these disturbances and their great duration, extending over several hours, preclude them from the category of